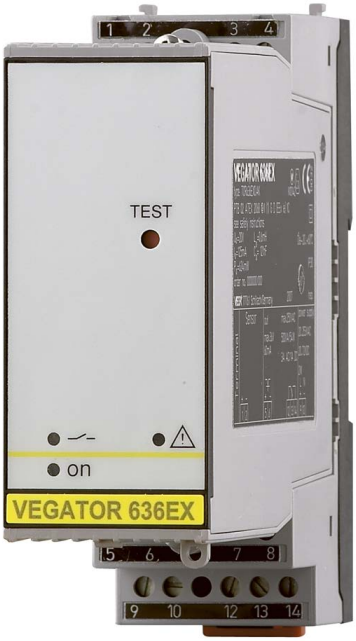
Operating Instructions

VEGATOR 636 Ex

Signal conditioning instrument



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Supplementary documentation

Information:
Supplementary documents appropriate to the ordered version come with the delivery. You can find them listed in chapter "*Product description*".

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1 About this document

1.1 Function

This operating instructions manual provides all the information you need for mounting, connection and setup as well as important instructions for maintenance and fault rectification. Please read this information before putting the instrument into operation and keep this manual accessible in the immediate vicinity of the device.

1.2 Target group

This operating instructions manual is directed to trained specialist personnel. The contents of this manual should be made available to these personnel and put into practice by them.

1.3 Symbolism used

Information, tip, note
This symbol indicates helpful additional information.

Caution: If this warning is ignored, faults or malfunctions can result.

Warning: If this warning is ignored, injury to persons and/or serious damage to the instrument can result.

Danger: If this warning is ignored, serious injury to persons and/or destruction of the instrument can result.

Ex applications
This symbol indicates special instructions for Ex applications.

- **List**
  The dot set in front indicates a list with no implied sequence.

→ **Action**
This arrow indicates a single action.

1 **Sequence of actions**
Numbers set in front indicate successive steps in a procedure.

Battery disposal
This symbol indicates special information about the disposal of batteries and accumulators.

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2 For your safety

2.1 Authorised personnel

All operations described in this operating instructions manual must be carried out only by trained specialist personnel authorised by the plant operator.

During work on and with the device the required personal protective equipment must always be worn.

2.2 Appropriate use

VEGATOR 636 Ex is a universal signal conditioning instrument for connection of a level switch.

You can find detailed information on the application range in chapter "*Product description*".

Operational reliability is ensured only if the instrument is properly used according to the specifications in the operating instructions manual as well as possible supplementary instructions.

For safety and warranty reasons, any invasive work on the device beyond that described in the operating instructions manual may be carried out only by personnel authorised by the manufacturer. Arbitrary conversions or modifications are explicitly forbidden.

2.3 Warning about incorrect use

Inappropriate or incorrect use of the instrument can give rise to application-specific hazards, e.g. vessel overfill or damage to system components through incorrect mounting or adjustment.

2.4 General safety instructions

This is a high-tech instrument requiring the strict observance of standard regulations and guidelines. The user must take note of the safety instructions in this operating instructions manual, the country-specific installation standards as well as all prevailing safety regulations and accident prevention rules.

The instrument must only be operated in a technically flawless and reliable condition. The operator is responsible for trouble-free operation of the instrument.

During the entire duration of use, the user is obliged to determine the compliance of the necessary occupational safety measures with the current valid rules and regulations and also take note of new regulations.

2.5 CE conformity

This device fulfills the legal requirements of the applicable EC guidelines. By attaching the CE mark, VEGA provides a confirmation of successful testing. You can find the CE conformity declaration in the download area of "www.vega.com".

2.6 Safety instructions for Ex areas

Please note the Ex-specific safety information for installation and operation in Ex areas. These safety instructions are part of the operating instructions manual and come with the Ex-approved instruments.

2.7 Environmental instructions

Protection of the environment is one of our most important duties. That is why we have introduced an environment management system with the goal of continuously improving company environmental protection. The environment management system is certified according to DIN EN ISO 14001.

Please help us fulfill this obligation by observing the environmental instructions in this manual:

- Chapter "*Packaging, transport and storage*"
- Chapter "*Disposal*"

3 Product description

3.1 Configuration

Scope of delivery

The scope of delivery encompasses:

- VEGATOR 636 Ex signal conditioning instrument
- Terminal socket
- Bridges (4 pieces)
- Coded pins (2 pieces)
- Ex label
- Ex separating chamber
- Documentation
  - this operating instructions manual
  - Ex-specific "*Safety instructions*" (with Ex versions)
  - if necessary, further certificates

Constituent parts

The VEGATOR 636 Ex consists of:

- VEGATOR 636 Ex signal conditioning instrument

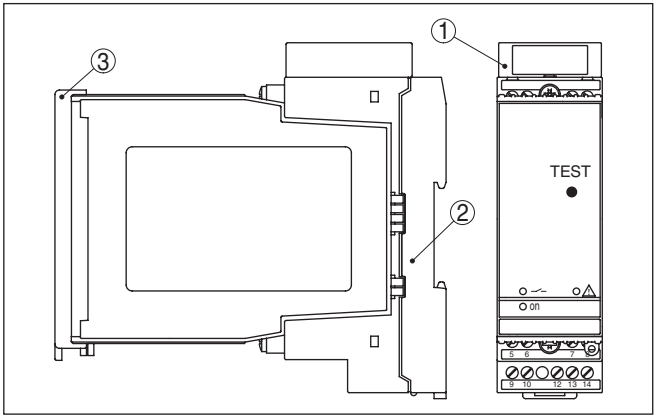

Fig. 1: VEGATOR 636 Ex

1 Ex separating chamber with Ex version
2 Terminal socket
3 Transparent cover

Type plate

The nameplate contains the most important data for identification and use of the instrument:

- Article number
- Serial number
- Technical data
- Article numbers, documentation

The serial number allows you to access the delivery data of the instrument via "www.vega.com", "*VEGA Tools*" and "*serial number search*".

3.2 Principle of operation

Application area

VEGATOR 636 Ex is a single signal conditioning instrument for processing of vibrating level switches.

Functional principle

The VEGATOR 636 Ex signal conditioning instrument powers connected sensors and simultaneously processes their measuring signals.

When the medium reaches the switching point of the sensor, the voltage on the sensor drops. The output relays then switch according to the set mode.

Voltage supply

Wide-range power supply unit with 20 … 253 V AC/DC for world-wide use.

Detailed information about the power supply can be found in chapter "*Technical data*".

3.3 Adjustment

The switching delay and the mode (A/B) can be preset on the signal conditioning instrument via a DIL switch block.

A test key is lowered on the front plate of VEGATOR 636 Ex. When pushing the key, the measuring system is checked on correct function.

3.4 Packaging, transport and storage

Packaging

Your instrument was protected by packaging during transport. Its capacity to handle normal loads during transport is assured by a test based on ISO 4180.

The packaging of standard instruments consists of environment-friendly, recyclable cardboard. For special versions, PE foam or PE foil is also used. Dispose of the packaging material via specialised recycling companies.

Transport

Transport must be carried out under consideration of the notes on the transport packaging. Nonobservance of these instructions can cause damage to the device.

Transport inspection

The delivery must be checked for completeness and possible transit damage immediately at receipt. Ascertained transit damage or concealed defects must be appropriately dealt with.

Storage

Up to the time of installation, the packages must be left closed and stored according to the orientation and storage markings on the outside.

Unless otherwise indicated, the packages must be stored only under the following conditions:

- Not in the open
- Dry and dust free
- Not exposed to corrosive media
- Protected against solar radiation
- Avoiding mechanical shock and vibration

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Storage and transport temperature

- Storage and transport temperature see chapter "*Supplement - Technical data - Ambient conditions*"
- Relative humidity 20 … 85 %

4 Mounting

4.1 General instructions

Installation place

VEGATOR 636 Ex signal conditioning instrument with plug-in socket for mounting on carrier rail according to EN 50022.

Transparent cover

The front plate of VEGATOR 636 Ex can be provided with a lead-sealable transparent cover to protect the instrument against unauthorised or inadvertent adjustment. See the following figure on how to remove the transparent cover.

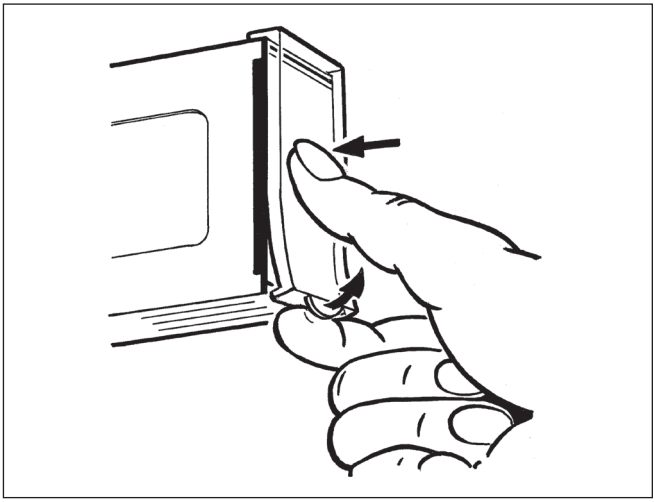

Fig. 2: Removing the transparent cover

Housing IP 65

For moisture-protected mounting outside the switching cabinet, we offer an insulated protective housing with transparent cover (IP 65) for surface mounting.

In this housing you can mount a maximum of 3 instrument of 36 mm width.

4.2 Mounting instructions

Installation

The plug-in socket is constructed for carrier rail mounting according to EN 50022. Operating voltage is connected to terminals 9 and 10. For neighbouring signal conditioning instruments, it is possible to continue connection L1 and N directly via the supplied bridges.

Danger:
The bridges must never be used with single instruments or at the end of a row of instruments. If this rule is not heeded, there is a danger of coming into contact with the operating voltage or causing a short circuit.

A VEGATOR 636 Ex in Ex version is an auxiliary, intrinsically safe instrument and may not be installed in explosion-endangered areas.

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Ex separating chamber

Before setup, the Ex separating chamber must be attached (as shown below) with Ex versions. Safe operation can be only ensured if the operating instructions manual and the EG type approval certificate are observed. VEGATOR 636 Ex must not be opened.

Close the upper terminals according to the following illustration.

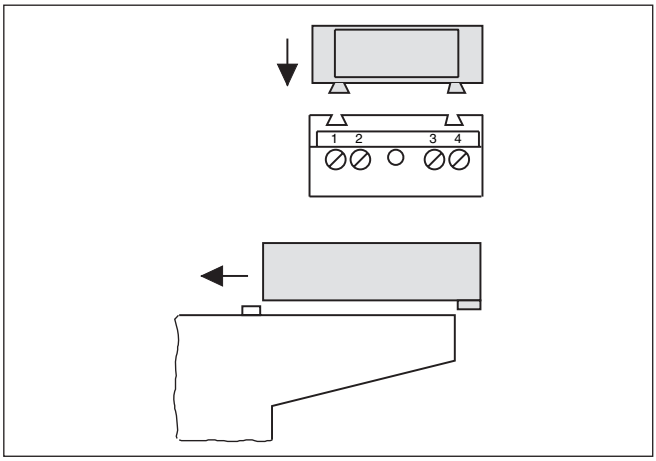

Fig. 3: Mounting the separating chamber

Instrument coding

All signal conditioning instruments are provided with different gaps dependent on type and version (mechanical coding).

The plug-in socket is provided with coded pins that can be inserted to prevent accidental interchanging of the various instrument types.

With a VEGATOR 636 Ex in Ex version, the supplied coded pins (type coded pin and Ex coded pin) must be inserted by the user according to the below chart.

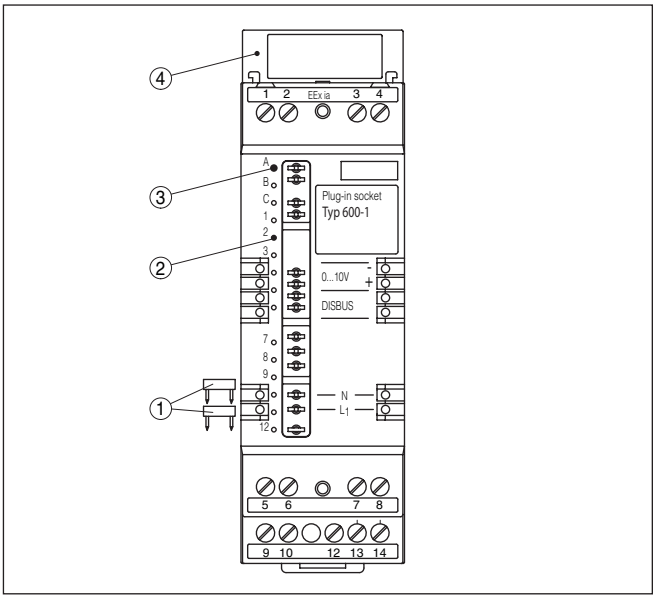

Fig. 4: Plug-in socket VEGATOR 636 Ex

1 Bridges for looping the operating voltage
2 Type coding for VEGATOR 636 Ex
3 Ex coding with Ex version
4 Ex separating chamber

5 Connecting to power supply

5.1 Preparing the connection

Note safety instructions

Always keep in mind the following safety instructions:

- Connect only in the complete absence of line voltage
- If overvoltage surges are expected, overvoltage arresters should be installed

Tip:
We recommend VEGA overvoltage arresters B61-300 (power supply VEGATOR 636 Ex) and B62-36G (sensor supply).

Take note of safety instructions for Ex applications

In hazardous areas you must take note of the respective regulations, conformity and type approval certificates of the sensors and power supply units.

Select power supply

The power supply can be 20 … 250 V AC, 50/60 Hz or 20 … 72 V DC.

Select connection cable

The operating voltage of VEGATOR 636 Ex is connected with standard cable according to the national installation standards.

The sensors are connected with standard two-wire cable without screen. If electromagnetic interference is expected which is above the test values of EN 61326 for industrial areas, screened cable should be used.

Cable screening and grounding

Connect the cable screen on both ends to ground potential. In the sensor, the screen must be connected directly to the internal ground terminal. The ground terminal on the outside of the sensor housing must be connected to the potential equalisation (low impedance).

If potential equalisation currents are expected, the connection on the processing side must be made via a ceramic capacitor (e. g. 1 nF, 1500 V). The low-frequency potential equalisation currents are thus suppressed, but the protective effect against high frequency interference signals remains.

Select connection cable for Ex applications

Take note of the corresponding installation regulations for Ex applications. In particular, make sure that no potential equalisation currents flow over the cable screen. In case of grounding on both sides this can be achieved by the use of a capacitor or a separate potential equalisation.

5.2 Connection procedure

Move on to electrical connection and proceed as follows:

1. Snap the socket without VEGATOR 636 Ex onto the carrier rail
2. Connect sensor cable to terminal 1 and 2, and where applicable, connect the screen
3. Connect power supply (switched off) to terminal 9 and 10
4. Insert VEGATOR 636 Ex into the plug-in socket and screw it down tightly

The electrical connection is hence finished.

Before setting up Ex versions, make sure the Ex separating chamber is plugged (above the sensor terminals). The pins for type and Ex coding must also be inserted correctly.

5.3 Wiring plan

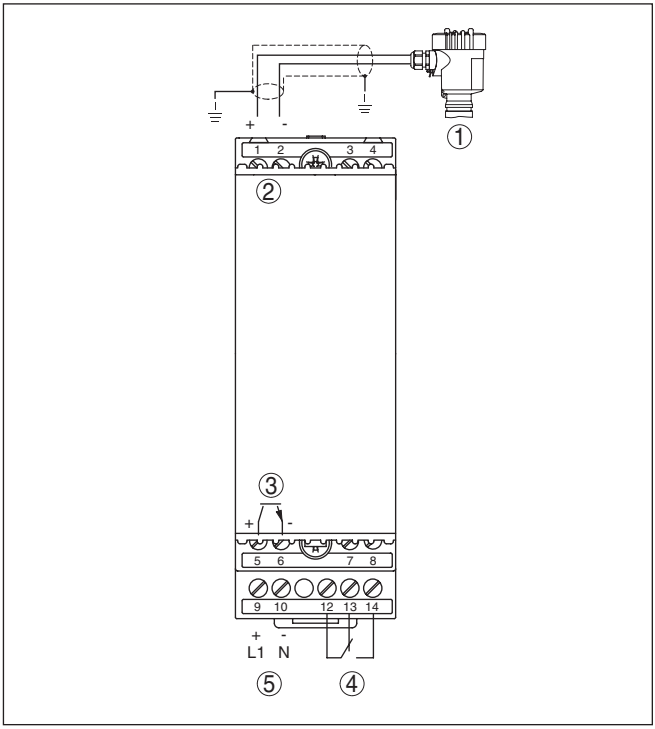

Fig. 5: Wiring plan VEGATOR 636 Ex

1 Sensor
2 Sensor input
3 Transistor output
4 Relay output
5 Operating voltage

6 Setup

6.1 Adjustment system

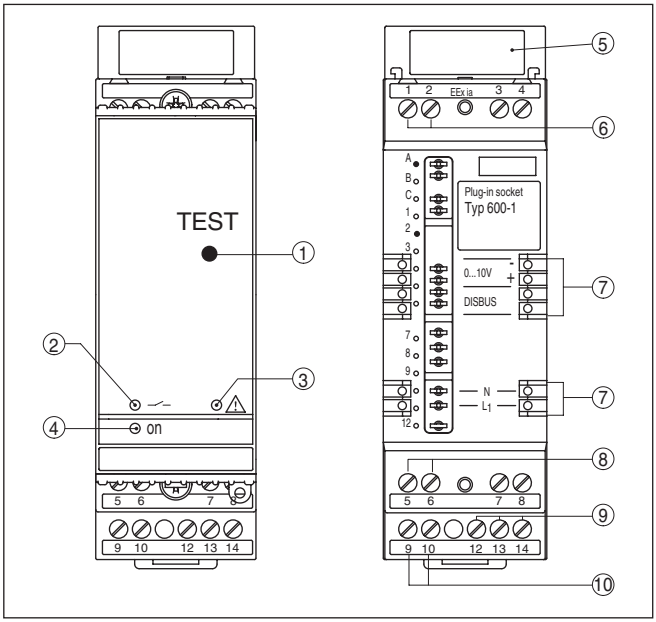

Fig. 6: Display and adjustment elements

1 Test key
2 Control lamp - level relay (LED yellow)
3 Control lamp - Fault signal (LED red)
4 Control lamp - Operating voltage (LED green)
5 Ex separating chamber
6 Terminal for probe
7 Sockets for bridges
8 Transistor output
9 Relay output
10 Voltage supply

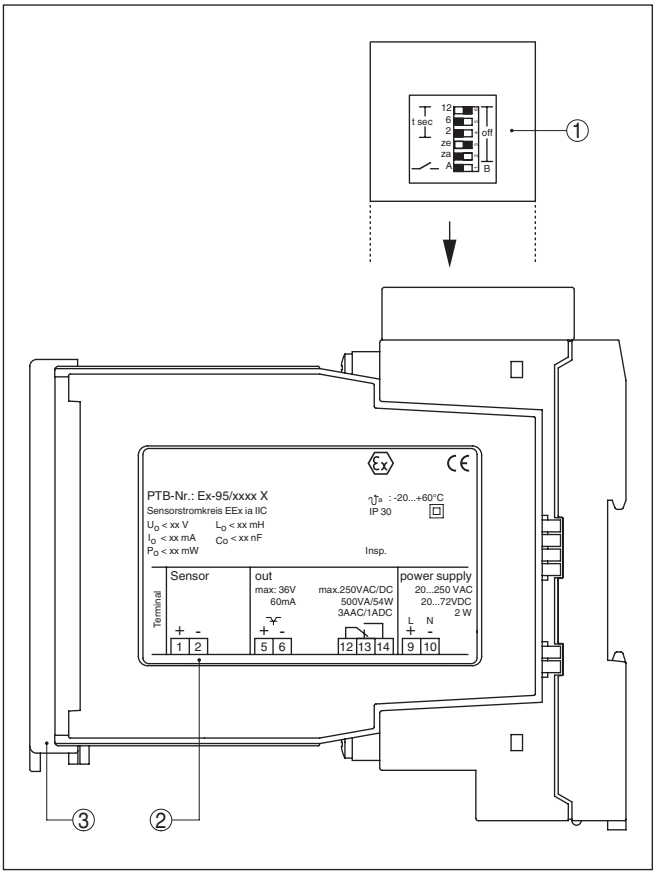

Fig. 7: Display and adjustment elements

1 DIL switch block
2 Type plate
3 Transparent cover

6.2 Adjustment elements

Control lamps

Control lamps (LED) in the front plate indicate operation, switching status and fault signal.

- Green
  - Operating control lamp
  - Mains voltage on, instrument is operating
- Red
  - Failure lamp
  - Fault on the sensor circuit due to sensor failure or line break
  - The relay deenergises in case of failure
- Yellow

- Relay control lamp
- The yellow relay control lamp reacts depending on the set mode (A/B)
- The relay control lamp generally indicates the activated (energized) condition of the relay
- A dark relay control lamp means that the relay is deenergised (transistor blocks)

DIL switch block

Laterally on top (covered when mounted) there is a DIL switch block with six switches. The individual switches are assigned as follows:

- 1 - A/B mode
  - A - Max. detection or overflow protection
  - B - Min. detection or dry run detection
- 2 - Switch off delay (za)
- 3 - Switch on delay (ze)
- 4 - Switching delay 2 s
- 5 - Switching delay 6 s
- 6 - Switching delay 12 s

With switch 1 you can adjust the mode (A - overfill protection or B - dry run protection).

With switches 2 and 3 you can set switch off and/or switch on delays independent of each other.

The delay refers to the switching function of the relay.

In the example (see previous illustration), mode A (max. detection of overfill protection) is selected (switch 1). The switch off delay is activated (switch 2) and the switching delay is set to 8 seconds (switch 4, 5 and 6).

With switches 4, 5 and 6 you can adjust the switching delay. The times of the activated time switches accumulate. If the switch on (ze) and switch off delay (za) are switched on together, the set time applies to both delay modes.

Hence the relay deenergises with 8 seconds delay time when the switching point is reached.

Information:
Keep in mind that the switching delay of the sensor and signal conditioning instrument accumulate.

Switch	**1**	**2**	**3**	**4**	**5**	**6**
Time		**za**	**ze**	**2 s**	**6 s**	**12 s**
0.2 s	A/B	off	off	off	off	off
0.5 s	A/B	[1]		off	off	off
2 s	A/B			on	off	off
6 s	A/B			off	on	off
8 s	A/B			on	on	off
12 s	A/B			off	off	on

[1] Set alternately switch 2 and/or 3 to "on". The times apply to the adjusted delay mode.

Switch	1	2	3	4	5	6
14 s	A/B			on	off	on
18 s	A/B			off	on	on
20 s	A/B			on	on	on

Function monitoring

The measuring system is continuously monitored. The following criteria are checked:

- Two-wire cable on line break and shortcircuit
- Interruption of the connection cable to the piezo elements
- Corrosion or damage of the tuning fork (vibrating rod)
- Break of the tuning fork (vibrating rod)
- Loss of vibration
- Too low vibrating frequency
- Medium penetrating from the vessel side into the sensor

Test key

In systems with VEGASWING or VEGAVIB level switches in conjunction with a two-wire electronics module, a function test can be carried out. VEGATOR 636 Ex has an integrated test key. The test key is recessed in the front plate of the signal conditioning instrument. Push the test key with a suitable object (e.g. screwdriver, pen etc.).

By pushing the key, the system is checked on the following criteria:

- Switching function of the switching outputs
- Potential separation of the outputs
- The signal processing of the signal conditioning instrument

After pushing the test key, the complete measuring system is checked on correct function. The following operating conditions are simulated during the test:

- Fault message
- Empty signal
- Full signal

Check if all three switching conditions occur in the correct sequence and the stated duration. If not, there is a fault in the measuring system (see chapter "*Fault rectification*").

Note:
Keep in mind that the connected instruments are activated during the function test. By doing this, you can check the correct function of the measuring system.

Test procedure

After releasing the key.

The specified times apply with a tolerance of ±20 %.

	A-mode	B-mode
1 Simulation of a fault signal (approx. 3 s) Level relay deenergised	Relay control lamp off	Relay control lamp off
1 Simulation of a fault signal Failure lamp	Failure lamp lights	Failure lamp lights

	A-mode	B-mode
2 Simulation an empty signal (approx. 1.5 s) Level relay energised	Relay control lamp lights	Relay control lamp off
2 Simulation of an empty signal Failure lamp	Failure lamp off	Failure lamp off
3 Simulation of a full signal (approx. 1.5 s) Level relay deenergised	Relay control lamp off	Relay control lamp lights
3 Simulation of a full signal Failure lamp	Failure lamp off	Failure lamp off
4 Return to the current operating condition (covered/ uncovered)		

Evaluation

Check the process of the function test. Take the following criteria into account for evaluation of the result:

Test passed

If all three switching conditions occur in the correct sequence and the specified duration (±20 %), then the test is passed and the instrument functions correctly.

Test not passed

- The specified times deviate considerably from the table (>3 s)
- One of the switching conditions remains unchanged
- No start-up of the test - no signal sequence

6.3 Function chart

The following chart provides an overview of the switching conditions depending on the set mode and the level.

The mode switch on the sensor (if available) must be set to max. operation.

	Sensor (max. operation)		Signal conditioning instrument		
Mode on the signal conditioning instrument	**Level**	**Signal current - Sensor**	**Signal lamp - Switching output (yellow)**	**Control lamp - Failure (red)**	**Outputs**
Mode A Overflow protection		approx. 8 mA	☼	○	Relay energized transistor conducts
Mode A Overflow protection		approx. 16 mA	○	○	Relay de-energized transistor blocks

	Sensor (max. operation)		Signal conditioning instrument		
Mode on the signal conditioning instrument	**Level**	**Signal current - Sensor**	**Signal lamp - Switching output (yellow)**	**Control lamp - Failure (red)**	**Outputs**
Mode B Dry run protection		approx. 16 mA	☼	○	Relay energized transistor conducts
Mode B Dry run protection		approx. 8 mA	○	○	Relay de-energized transistor blocks
Fault message (mode A/B)	any	approx. 1.8 mA	○	☼	Relay de-energized transistor blocks

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7 Maintenance and fault rectification

7.1 Maintenance

If the instrument is used properly, no special maintenance is required in normal operation.

7.2 Rectify faults

Failure reasons

A maximum of reliability is ensured. Nevertheless, faults can occur during operation. These may be caused by the following, e.g.:

- Measured value from sensor not correct
- Voltage supply
- Interference on the cables

Fault rectification

The first measure to be taken is to check the input and output signals. The procedure is described as follows. In many cases the causes can be determined this way and faults can be easily rectified.

24 hour service hotline

Should these measures not be successful, please call in urgent cases the VEGA service hotline under the phone no. **+49 1805 858550**.

The hotline is available to you 7 days a week round-the-clock. Since we offer this service world-wide, the support is only available in the English language. The service is free of charge, only the standard telephone costs will be charged.

Fault

Error	Cause	Rectification
The red failure control lamp (LED) of the signal conditioning instrument lights	Sensor not connected correctly	– In Ex systems, make sure that the Ex protection is not influenced by the measuring instruments used. – Measure the current value on the signal cable to the sensor – Faults on the sensor causing a current change below 3.7 mA or above 21 mA, cause a fault signal on measuring instruments.
	Sensor not connected correctly	– In Ex systems, make sure that the Ex protection is not influenced by the measuring instruments used. – Measure the voltage on the connection cable – The terminal voltage of the sensor is at least 12 V in normal condition

Error	Cause	Rectification
The red failure control lamp (LED) of the signal conditioning instrument lights	Current value < 3.7 mA	– Measure the current value on the signal cable to the sensor – Check all connections and connection cables to the sensor – The voltage should be approx. 17 … 20 V – If the value is below 17 V, probably the signal conditioning instrument is defective. – Exchange the signal conditioning instrument or send it for repair – If the red failure lamp continues to light, separate the sensor from the connection cable and connect a resistor of 1 kΩ instead on the signal conditioning instrument – If the failure lamp continues to light, the signal conditioning instrument is defective – Exchange the signal conditioning instrument or send it for repair – Should the failure lamp extinguish, you can connect the sensor again. Separate the signal conditioning instrument from the connection cable and connect a resistor of 1 kΩ to the sensor input – If the failure lamp continues to light, the connection cable is probably interrupted – Check the connection cable to the sensor – Should the failure lamp extinguish, the sensor will be defective – Exchange the sensor or send it in for repair
The red failure control lamp (LED) of the signal conditioning instrument lights	Current value > 21 mA	Measure the current value on the signal cable to the sensor – Check all connections and connection cables to the sensor – If the red failure lamp continues to light, separate the sensor from the connection cable and connect a resistor of 1 kΩ instead on the signal conditioning instrument – If the failure lamp extinguishes, the sensor is defective. Check the connected sensor – If the failure lamp continues to light, connect the sensor again. Separate signal conditioning instrument from the connection cable and connect a resistor of 1 kΩ to the sensor input. – If the failure lamp extinguishes, this is probably due to a shortcircuit in the connection cable – Check the connection cable to the sensor – If the failure lamp continues to light, the signal conditioning instrument is defective – Exchange the signal conditioning instrument or send it for repair
Malfunction during function test	After pushing the test key, the switching conditions do not occur in the correct sequence or correct duration, e.g. no full signal is outputted.	– Measure the line resistance – If the cable is highly resistive, bring it to a normal resistance, e.g. check terminals and cable connections on corrosion

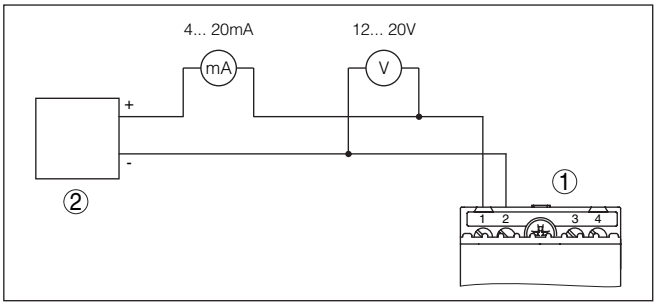

Fig. 22: Connection of a multimeter

1 VEGATOR 636 Ex signal conditioning instrument
2 Sensor

7.3 Instrument repair

If a repair is necessary, please proceed as follows:

You can download a return form (23 KB) from our Internet homepage www.vega.com under: "*Downloads - Forms and certificates - Repair form*".

By doing this you help us carry out the repair quickly and without having to call back for needed information.

- Print and fill out one form per instrument
- Clean the instrument and pack it damage-proof
- Attach the completed form and, if need be, also a safety data sheet outside on the packaging
- Please ask the agency serving you for the address of your return shipment. You can find the respective contact data on our website www.vega.com under: "*Company - VEGA worldwide*"

8 Dismounting

8.1 Dismounting steps

Take note of chapters "*Mounting*" and "*Connecting to power supply*" and carry out the listed steps in reverse order.

8.2 Disposal

The instrument consists of materials which can be recycled by specialised recycling companies. We use recyclable materials and have designed the parts to be easily separable.

WEEE directive 2002/96/EG

This instrument is not subject to the WEEE directive 2002/96/EG and the respective national laws. Pass the instrument directly on to a specialised recycling company and do not use the municipal collecting points. These may be used only for privately used products according to the WEEE directive.

Correct disposal avoids negative effects on humans and the environment and ensures recycling of useful raw materials.

Materials: see chapter "*Technical data*"

If you have no way to dispose of the old instrument properly, please contact us concerning return and disposal.

9 Supplement

9.1 Technical data

General data	
Series	Module unit with plug-in socket for mounting on carrier rail 35 x 7.5 or 35 x 5 according to EN 50022
Weight	170 g (6 oz)
Housing material	Noryl SE100, Lexan 920A
Socket material	Noryl SE100, Noryl SE1 GFN3

Voltage supply	
Operating voltage	20 … 250 V AC, 50/60 Hz, 20 … 72 V DC
Max. power consumption	3 W (3 … 18 VA)

Sensor input	
Quantity	1
Data transmission	Analogue
Hysteresis	100 µA
Switching threshold	12 mA
Current limitation	24 mA (permanently short-circuit proof)
Sensor operating voltage	15 … 18 V DC
Detection line break	≤ 3.7 mA
Detection shortcircuit	≥ 21 mA
Configuration, connection cable	2-wire
Resistance per conductor	max. 35 Ω

Relay output	
Number, function	1 x switching relay (spdt)
Switching delay	0.2 … 20 s, directional switching
Mode	A/B switch (A - max. detection or overfill protection, B - min. detection or dry run protection)
Contact	1 x spdt
Contact material	AgNi 0.15 hard gold-plated
Switching voltage	≥ 10 mV DC, ≤ 253 V AC/DC
Switching current	≥ 10 µA DC, ≤ 3 A AC, 1 A DC
Breaking capacity	≤ 500 VA, ≤ 54 W DC

Transistor output	
Number, function	1 output, synchronously switching with the relay
Galvanic separation	Floating
Maximum values	
– U_B	36 V DC
– I_B	≤ 60 mA, short-circuit proof
Transistor voltage loss (U_{CE})	approx. 1.5 V at I_B 60 mA

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Inverse current (I_0)	< 10 µA

Adjustment elements	
DIL switch block	for preadjustment of the switching delay and mode
Test key	for function test
Control lamps in the front plate	
– Status indication operating voltage	LED green
– Status indication fault signal	LED red
– Status indication switching point control	LED yellow

Ambient conditions	
Ambient temperature	-20 … +60 °C (-4 … +140 °F), the permissible ambient temperature reduces linear from 60 °C (140 °F) auf 40 °C (104 °F) with an operating voltage of 60 … 72 V DC
Storage and transport temperature	-40 … +70 °C (-40 … +158 °F)

Electrical protective measures	
Protection rating	
– Signal conditioning instrument	IP 30
– Terminal socket	IP 20
Overvoltage category	II
Protection class	II
Electrical separating measures	reliable separation (VDE 0106, part 1) between power supply, sensor input, level relay and transistor output

Functional safety (SIL)

The instrument can be used in safety-instrumented systems according to IEC 61508/IEC 61511-1 (service proven).

If the instrument is already ordered with SIL qualification Ex factory, then the corresponding Safety Manual with information on the topic "Functional safety (SIL)" is part of the shipment.

If the instrument is ordered Ex factory without SIL qualification, then the corresponding Safety Manual is available under "www.vega.com", "*Downloads*", "*Approvals*".

Approvals

Instruments with approvals can have different technical data depending on the version.

For that reason the associated approval documents of these instruments have to be carefully noted. They are part of the delivery or can be downloaded under www.vega.com via "*VEGA Tools*" and "*serial number search*" as well as via "*Downloads*" and "*Approvals*".

9.2 Dimensions

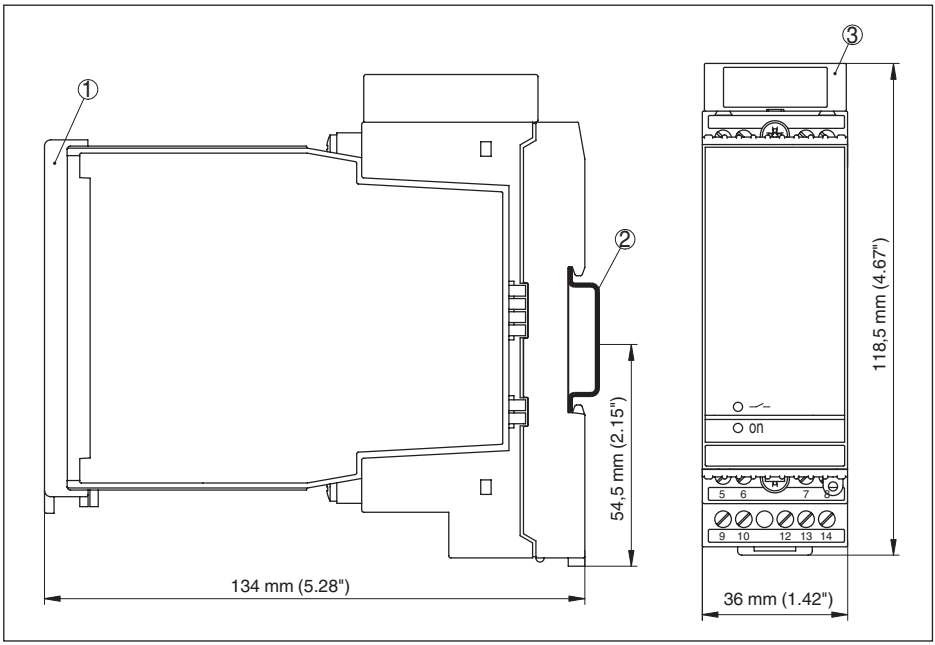

Fig. 23: Dimensions VEGATOR 636 Ex

1 Transparent cover
2 Carrier rail 35 x 7.5 or 35 x 15 according to EN 50022
3 Ex separating chamber

Printing date:

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.
Subject to change without prior notice

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